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ABSTRACT

Since 1989, the French government has been developing a program to encourage forecasting studies on skills and training needs within the framework of a dialogue between the social partners. A review of the program showed that the forecasting studies have been conducted either by public research institutions or by private consulting firms. Some problems have occurred because some employers are not well disposed toward the active participation of workers. The forecasting studies have taken a comprehensive approach, attempting to give an overall picture of the training-employment relationship by examining the sectoral environment and its evolution in national and sometimes international terms, the current employment situation, the supply of training, and change and policy factors. In some cases, quantitative projection is undertaken, although qualitative analysis is the basis of most studies. Such analysis focuses mostly on job content. Analysis of the various studies shows that they have indicated future policy directions and made proposals mainly addressed to the firms but also to the government and those in charge of initial and continuing training. In most cases, these studies have the advantage of addressing the problems in a comprehensive way and showing interrelationships among different elements. Such studies can be a necessary prerequisite to public intervention and to the development of dialogue among the interested parties. (KC)

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A NEWSLETTER FROM CEREO
AND ITS ASSOCIATED CENTRES

No 10

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Forecasting Skills and Training Requirements

A French Programme to Promote a Sectoral Approach

SINCE 1989 the French government has been developping a programme to encourage forecasting studies on skills and training needs at the sectoral level within the framework of a dialogue between the social partners.

UNTIL the beginning of the 1970s, France had sought to develop a comprehensive system of medium-run economic planning integrating employment, education and training. Forecasts were elaborated according to the manpower approach so that outlooks for jobs to be provided, identified according to sector and occupational group, could be compared with available manpower, particularly in terms of anticipated exits from the training system.

This approach has since been abandoned by the government agencies involved (the planning commission and INSEE, the national statistics institute), at least in relation to skills and training needs. Several reasons can be cited. First of all, the uncertainties of forecasting were magnified by

unanticipated changes in the economy. In addition, liberal ideology and the overtone toward international competition increasingly won out over the interventionism of the previous period. Finally, more sophisticated analysis brought out the complexity of training-employment relations, notably the interdependence of supply and demand and the importance of occupational mobility phenomena.

The abandonment of forecasting as the basis of planning left a gap that was all the more difficult to fill in view of the fact that education and training were increasingly seen as decisive factors in national competitiveness and were often criticized for being unsuited to economic needs.

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Several steps have been taken to fill this gap. For one thing, another government agency, the Office for Information and Economic Forecasting (BIPE), took over the problem of macroeconomic modelling of employment and skills. This approach is important to those responsible for long-term educational policies but also to the regional authorities. In fact, now that the latter have broader powers over educational investments, they are seeking to orient themselves to the anticipated needs of their region.

At the same time, the government (Vocational Training Delegation, Ministry of Labour) has set up a programme including macroeconomic projections, a regional approach and a sectoral approach. It is the last of these three which is the subject of this article. Created in 1988, it is based on the Forecasting Studies Contracts (*Contrats d'études prévisionnelles* or CEP), which are aimed at encouraging the different economic activity sectors to think about their own evolution and to orient their training activities accordingly, in particular where continuing training is concerned. The CEPs should be able to provide a basis for potential negotiations with the government in order to obtain financial assistance for the development of training. But above all, this programme is conceived as a means of encouraging co-operation and dialogue among the social partners. Indeed, the significant restructuring that the production system is or will be undergoing affects the skilling and training of the work force and will be more likely to take place in better conditions if they are prepared in co-operation with employee representatives.

The CEPs are undertaken on the initiative of the employers' organisations in co-operation with union groups and with funding from the State. Thus far, some twenty sectoral studies have been carried out successfully.

The programme has recently undergone its first review (1), which allows us to draw certain conclusions from the experience and to determine what might actually be a realistic approach to the forecasting of skills and training given the present state of our knowledge. The goals, the methods, the processes and the results achieved are all extremely varied, but it is possible to make some generalisations about them from this initial review.

PROCEDURAL ASPECTS

THE studies were assigned either to public research institutions such as CEREG or to private consulting firms. Quite frequently, given that their competences were complementary, several of these bodies might be associated, with each one assigned a different task (e.g., analysis of jobs and competences to one, overall quantitative analysis to another).

These were carried out under the supervision of a steering committee made up of employer, union and government representatives. One basic problem stems from the participation of these different partners. In principle, this participation should be as active as possible. But the employers organisations and the firms are not always well disposed towards the active participation of workers and their representatives, with the result that the union presence has sometimes remained purely formal. Certain firms did not want the study to include individual interviews with their personnel apart from managers.

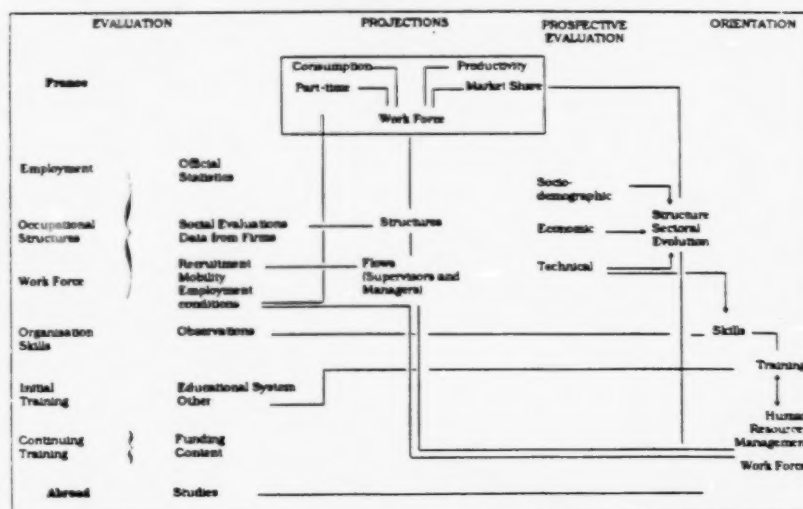
Even when the two parties are willing to collaborate, the number of competent personnel available to employer and union organisations for this purpose is often rather limited. This problem can be addressed in two ways: either by privileging technical elements, efficiency and rapidity, or conversely, by giving priority to the participation of the partners, the development of dialogue and the training value of the exercise itself. While the second approach is not the easiest, it is the most consistent with the spirit of the programme.

CONTENT AND METHOD

A Comprehensive Approach to One Sector

The most complete forecasting studies have attempted to give an overall picture of the training-employment relationship by examining in turn the sectoral environment and its evolution in national and sometimes international terms, the current employment situation both quantitatively and qualitatively, the supply of initial and continuing training, factors of change and their possible consequences for employment, occupational structure, job contents and skills, and finally, the directions or policies suggested. In most cases, studies have functioned primarily on the qualitative level and address quantitative changes with great caution.

TABLE 1: Flow Chart of Approach Followed for Food Retailing



Source CEREG 1990

(1) Jointly undertaken by CEREG and Quatremaire Education.

The main methodological problems concern the sectoral nature of the approach, the validity of the forecasts and the analysis of skills.

The sectoral approach allows prospects for change to be considered more concretely than a national approach does, and is better able to enter into the particular logic of the sector. Above all, it deals directly with the employer and union organisations of the sector and thus meets the conditions for co-operation among the social partners. On the other hand, it has several drawbacks:

- Only those skills and training programmes that are specific to a sector can be related directly to jobs. This is not possible for non-specific skills, such as those involved in management and marketing functions, or computer and secretarial services.
- The notion of the sector poses a problem of definition and homogeneity. To find adequate homogeneity among firms and qualifications, it is often necessary to go to a lower level. It could be interesting to develop a typology that would identify the characteristic subgroups.
- In terms of applying the results, the possibilities for decision-making on the sectoral level are limited. The choice of future directions for employment, work organisation and training ultimately lie with the firms. The conclusions arrived at on the sectoral levels should be easily transferrable to the level of the firm, but this depends as much on the firm itself as on the methodology employed.

Quantitative Projection

This is undertaken only in a small number of cases, either because it is not the main priority or because of the methodological problems cited above. These experiences are nonetheless significant and interesting to examine.

The essential element consists of analysing factors of change and their potential impact. Such factors obviously differ from one sector to another but mainly include technology and international and national economic data (consumption, market, exchanges, product range) which permit the evaluation of the possible development of the activity level. The latter is then converted into the employment level by taking into account factors such as productivity and the proportion of part-time employees (see Table 2).

The combination of different hypotheses about all of these factors can lead to a very large variety of final results, with considerable distances between the extremes. The reports select only some of them, in the form of scenarios: minimum, maximum, probable, projected, etc.

This approach poses the problems inherent in all macroeconomic forecasting, notably the unpredictability of short-term variations, which can be very strong and thus contradict in the short run projections of trends that might well be verifiable over a longer period.

The economic projections for activity level and even employment are classic, but their usefulness as such in the training context is limited. By contrast, making the connection with training poses far greater problems which are hardly ever addressed.

In the first place, it presupposes that the projections concerning employment level are translated in terms of occupational structure. To do so requires having adequate information about the initial situation, which, as several CEPs have observed, is far from being the

TABLE 2: Factors of Change in the Pharmaceutical Industry

French Population	•Births/Deaths •Migrations	Increasing slightly
Consumption per Inhabitant	•Aging •Lifestyle •Self-medication •Reimbursement System •Price Levels •Medical Demography •Changing Disease Patterns	Increasing
Export/Import	•Price Differential •Productivity •Single Market •Patent Protection •French Innovations •Growth of Franc Zone •% Generic Drugs •Decision to Produce in France	Current balance positive, but weakening
Sales/R&D Expenditures	•Industry Structure - Small/Large - Foreign/French •Internationalisation •Strategic Decision •New Products •Research Priorities	Increasing, sustained effort
Average Price Level	•Regulation •Inflation •New Products	Increase lower than inflation
Productivity: - of Manufacturing - of Production	•Investment in Automation/Modernisation •Restructuring of Production in Europe	Increasing, mainly through automation/modernisation
Level of Expenditures in R&D Personnel	•Technological Change	R&D increasingly capital-consuming
Units Sold/Sales Personnel (Medical Visitors)	•Saturation of Networks •Allocation of Sales Resources •Direct/Indirect •Co-marketing •Medical Demography	Decreasing, network saturation beginning
Administrative Personnel/Others	•Cost Reductions •Fusions-Acquisitions	% Relatively constant

Source T.P.F.C. 1988

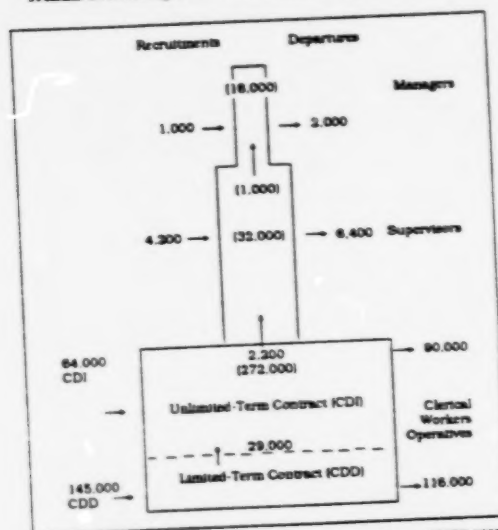
case. Variations in structure pose less difficult problems, if only because a certain stability can be assumed in the medium term. The rare CEPs that have attempted to quantify the evolution of structures have dealt solely with large groups of occupations.

In any case, these estimates are only of limited interest for training, or at least for initial training: what must be estimated is recruitment. When data were available (notably in sectors where the numbers were too small for the use of national sources), it was possible to observe that recruitments intended to replace departures were considerably more numerous than those responding to the creation of new jobs. This is an essential point, in that it brings out aspects that are inadequately known in the business world, if only by

stressing that recruitments remain necessary, even in a period when the numbers of employees are declining.

As a result, the quantification of employment prospects--whether these are called scenarios (the gamut of future possibilities) or projections (the extension of past developments into the future) rather than forecasts--are interesting above all for management of manpower and skills, but much less so for training. Where training is concerned, it is necessary to become used to reasoning in terms of flows (of recruitment, promotion, mobility), even when available data are inadequate and estimates must be used.

TABLE 3: Mobility Flows in the Retailing Sector in 1988



Source: CEREQ 1989

This is all the more true insofar as the comparison of data for employment and training also comes up against two other major obstacles:

- As already indicated, in a sectoral framework like that of the CEPs, only one part of the jobs is specific to the sector studied, while almost all initial training programmes address themselves to other sectors as well. That in itself is enough to rule out the training-equals-employment notion which, explicitly or not, is still present in many minds.
- For most of the jobs to be provided, it is difficult, if not impossible, to define a precise training profile. The observation of current practices shows a great diversity (according to the short-run situation, local labour markets and the firms). This reflects the flexible interrelationship between supply and demand that is a constant. The most to be hoped for is to indicate the margins and trends on the basis of the most frequently observed situations.

It must be stressed that this exercise brings out the responsibilities of the employers themselves in the development of these different parameters: it is their recruitment, career and employment policies that determine manpower flows just as much as the technical and economic environment does. Rather than forecasting the future, it is necessary to propose a context for analysis by showing the possible

consequences of different hypotheses. We shall thus speak of prospective scenarios rather than forecasting.

Qualitative Analysis

This is the basis of the studies, bearing notably on job contents. In certain cases, there is already a description of occupations that can be referred to. In others, this description does not exist or is out of date and so it must be produced as part of the study. In this case, it is not an exhaustive description but only one of the most characteristic situations, designated under the heading of reference jobs or standard jobs (the latter was inspired by CEREQ's work on the French Directory of Occupations). As much as possible, this analysis should be carried out with the workers themselves rather than with their superiors, for this kind of first-hand information allows us to know the workers' own perception of their work. This requires a heavy investment, however, and presumes management's consent to go directly to their subordinates.

Certain studies, rather than attempting to identify individual situations, target occupational families: groups of activities sharing common features in terms of skills. This approach raises two problems, however. The first involves translating the analysis of jobs and occupations into that of skills and competences. This is, of course, what interests today's firms the most, but given that there is neither a universally accepted definition of competence nor a scientific methodology for evaluating it, the process is debatable. There is thus a considerable danger of redundancy (the description of the competences hardly differs from that of the activities) or banality (the employer winds up seeking new recruits who are serious, hard-working, devoted to the firm, motivated, etc.). In other words, this is a necessary approach which should begin with clear ideas, but its results must be used with caution.

The second problem is that of the perception that may be had of the future evolution of jobs and skills. Here again it is necessary to identify factors of change and to attempt to evaluate the possible consequences of different hypotheses. This requires turning to human resources managers, and above all, to specialists in technical and organisational problems and operations managers in the production units, in order to gather information about possible modifications of the processes and means of production, of work organisation and of job contents.

Here too, the issue is not predicting the future but demonstrating the possible consequences of different hypotheses of change, notably the firm's choices concerning work organisation, which will largely determine future occupational structure and job contents. Thus, in the case of food retailing, for example, four firm strategies were analysed in terms of their possible consequences for skills: polyvalence and expansion of tasks, specialisation and professionalisation, development of intermediate skills and a system of career advancement, and maintenance of a traditional division of labour implying a low level of skills.

More generally, what must be analysed are the behaviours of the different players (employers, but also

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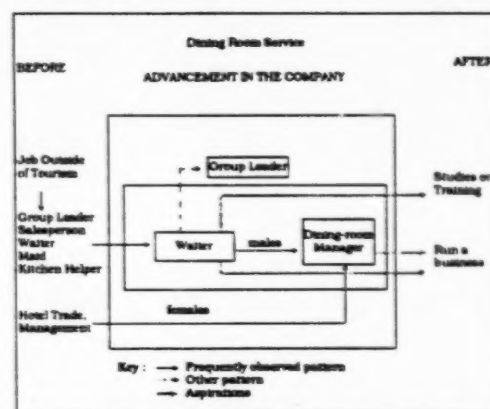
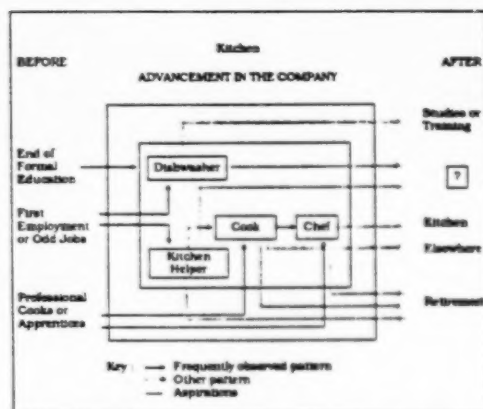
FORECASTING SKILLS AND TRAINING REQUIREMENTS

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workers and training system). Thus, the study on family and social tourism included a survey of a sample of workers in order to determine their motivations and aspirations and in this way elaborate a typology of employees. In combination with data on firm practices, these elements were used to identify possible career paths for the main jobs, as can be seen from the following examples:

TABLE 4: Career Paths and Employee Aspirations in Family and Social Tourism

Source: CEDAET 1992



Analysis of all of these considerations suggests that forecasting studies can be grouped into two different approaches. One group, which could be called voluntarist, and which was developed by the consulting firms, places the emphasis on probable changes in economic and technical variables and desired changes in skills and training in order to derive recommendations about the policies or directions that the firms in the sector should follow. The second approach, characterised as analytical and used by the research organisations, is more oriented towards showing the diversity of possible developments and analysing the factors that determine them.

The second approach could be considered a more scientific and accurate reflection of reality. The business world, however, has greater difficulty drawing operational conclusions from it than from the voluntarist approach, which is more familiar to them.

CONCLUSIONS AND RESULTS

ON the basis of this diagnosis of the current situation and prospects for change, the various studies have indicated future policy directions and made proposals mainly addressed to the firms but also to the government and those in charge of initial and continuing training. In most cases, these studies have the advantage of approaching the problems in a comprehensive way and showing interrelationships among different elements. While focussing on skills and training, they also suggest that in order to reach certain goals in this area, other factors must be taken into account, notably labour and employment conditions, which influence worker motivation and stability, and thus the effectiveness of their training.

The main interest of these studies, however, lies perhaps less in the final recommendations than in the fact of providing an occasion for dialogue and co-operation on the basis of a group of data and analyses that are not often available to the social partners for discussion. To be sure, the effectiveness of this process is largely dependent on the context: social relations that are more favourable to co-operation, or employer and union

organisations that are representative and dynamic will naturally take better advantage of this kind of studies.

In the best of circumstances, it is possible to speak of the pedagogical usefulness of this kind of exercise. It can promote understanding of the fact that while a certain vision of the future is necessary to clarify employment and training decisions, this vision cannot be a given based on scientific methodology. It depends on a complex group of factors, some of which remain within the grasp of the players themselves while others lie entirely outside their control. The equating of training and employment is a myth, even if it is still useful to identify probable trends and sketch out hypotheses.

In a context like that of France, where the government continues to play an important role but where it is also attempting to promote social dialogue, this kind of study can be a necessary prerequisite not only to any public intervention aimed at the encouragement of skills and training, but also to the development of such dialogue. This is why there is talk of expanding such a programme, notably in order to facilitate its use by bringing it closer to concrete situations in the firms and on the labour market. It could, for example, be more oriented toward the regional level, but within an inter-sectoral approach. The perspective would be different, but the search for a comprehensive prospective approach involving the social partners would remain the same.

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(Translation by Miriam Rosen)

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